



Docket No. 51334

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: H. Tsuchida et al.  
SERIAL NO.: 10/010,913-193 GROUP: 1773  
FILED: 12/06/2001 EXAMINER: Kevin R. Kruer  
FOR: NON-CHARGING RESIN COMPOSITE AND METHOD OF  
MANUFACTURING SAME

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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JAN 25 2007

OFFICE OF PETITIONS

Sir:

**PETITION TO WITHDRAW A HOLDING OF ABANDONMENT**

**PURSUANT TO 37 C.F.R. §1.181**

Pursuant to 37 C.F.R. §1.181, Applicants respectfully petition for withdrawal of the holding of abandonment for the above-referenced patent application, which, as indicated in a Notice of Abandonment mailed by the U.S. Patent Office on December 15, 2003 and received on December 17, 2003, was deemed to be abandoned for Applicants' alleged failure to properly respond to an Office letter mailed on May 27, 2003.

**STATEMENT OF FACTS**

The Attorneys of Record for Applicants confirm receipt of the Office letter of May 27, 2003, which Office letter indicated that claims 1-11 are rejected.

On July 11, 2003, the Attorneys of Record for Applicants sent via first-class mail, a complete and timely response to the Office letter of May 27, 2003. In particular, Applicants sent a response to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, which contained the following materials, copies of which are enclosed herein:

- (1) An amendment transmittal including a duly executed certificate of mailing bearing the date of July 11, 2003,
- (2) An amendment and response to the Office Action dated May 27, 2003;
- (3) Copy of papers previously filed to correct the filing date; and
- (4) A copy of the return receipt postcard;

As indicated in (1) above, the amendment transmittal included a duly executed certificate of mailing (pursuant to 37 C.F.R. §1.8). The certificate of mailing properly certified that the correspondence was deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on July 11, 2003. The Attorneys of Record received the return postcard date stamped by the United States Patent Office on August 11, 2003. The date stamped on the postcard is July 16, 2003 (copy enclosed).

The Attorneys of Record for the subject application received a Notice of Abandonment (mail date: December 15, 2003) for the above-referenced application on December 17, 2003, for Applicants' alleged failure to submit a proper response to the Office letter of May 27, 2003.

### **RELIEF REQUESTED**

Applicants respectfully request that the Commissioner, based on the following arguments, withdraw the erroneous holding of abandonment and enter the enclosed response into the record for the subject application.

### **ARGUMENT**

The within petition and the related enclosures are being filed within three (3) months of receipt of the Notice of Abandonment. Accordingly, the within petition is considered to be timely filed [37 C.F.R. 1.181(f)].

MPEP 711.04(c) provides that a petition to withdraw the holding of abandonment may be adequate relief when a response with a certificate of mailing has been filed by an applicant but

was not received. The MPEP also suggests that a Petition to revive is not required in these circumstances. The foregoing is believed to be applicable to the facts relating to the abandonment of the subject application.

In the instant case, Applicants filed a timely and complete response to the Office letter mailed on May 27, 2003, as evidenced by the enclosed materials. Thus, the abandonment of the subject application is wholly unintentional and erroneous.

### CONCLUSION

In view of the foregoing, Applicants submit that the holding of abandonment be withdrawn. As evidenced by the enclosed materials, Applicants provided a timely and complete reply to the Office letter of May 27, 2003.

Accordingly, Applicants respectfully request withdrawal of the holding of abandonment of the above-referenced patent application, and entry of the enclosed response to the Office letter of May 27, 2003.

No fee is believed to be due in connection with the filing or consideration of this petition. In the event any fee(s) is/are due, however, please charge such fee(s) to Deposit Account No. **04-1105**.

Respectfully submitted,

Date: March 17, 2004

  
\_\_\_\_\_  
Peter F. Corless (Reg. No. 33,860)  
EDWARDS & ANGELL, LLP  
P.O. Box 55874  
Boston, MA 02205  
Tel. No. (617) 439-4444

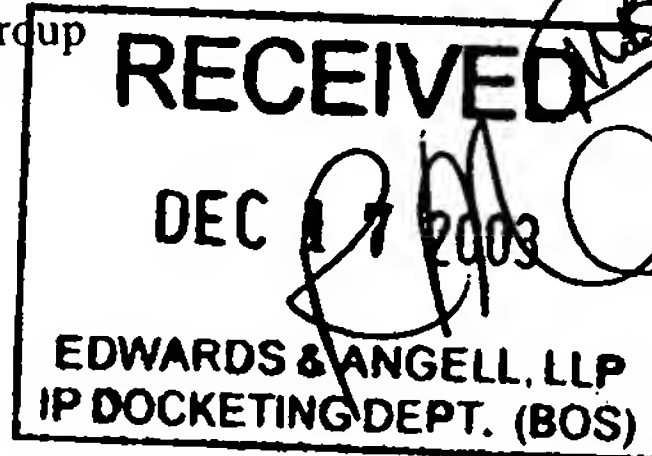


UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,193	12/06/2001	Hideki Tsuchida	51334	2589

EDWARDS & ANGELL, LLP  
Dike, Bronstein, Roberts & Cushman, IP Group  
P.O. Box 9196  
Boston, MA 02209



EXAMINER
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KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

NOTED ON SYSTEM

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JAN 25 2007  
OFFICE OF PETITIONS

cbll

# Notice of Abandonment

Application No.

10/010,193

Examiner

Kevin R Kruer

Applicant(s)

TSUCHIDA ET AL.

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

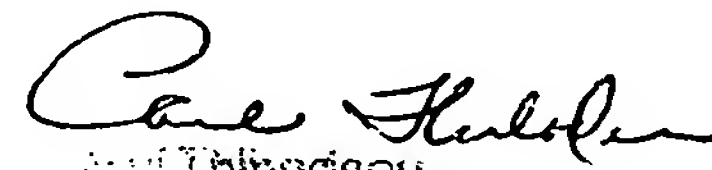
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This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 27 May 2003.
  - (a) ☐ A reply was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply (including a total extension of time of \_\_\_\_\_ month(s)) which expired on \_\_\_\_\_.
  - (b) ☐ A proposed reply was received on \_\_\_\_\_, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.  
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
  - (c) ☐ A reply was received on \_\_\_\_\_ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
  - (d) ☒ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
  - (a) ☐ The issue fee and publication fee, if applicable, was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
  - (b) ☐ The submitted fee of \$\_\_\_\_\_ is insufficient. A balance of \$\_\_\_\_\_ is due.  
The issue fee required by 37 CFR 1.18 is \$\_\_\_\_\_. The publication fee, if required by 37 CFR 1.18(d), is \$\_\_\_\_\_.
  - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
  - (a) ☐ Proposed corrected drawings were received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply.
  - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on \_\_\_\_\_ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:

  
Paul Thibodeau  
Supervisory Patent Examiner  
Technology Center 1700

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

SMC/PPC 51334 (7032) dec

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Mailing Date: 07/11/2003      Attorney/Sec: JJP/PFC/dmr  
Client: Shipley (70329)      Docket No.: 51334  
Inventors: Tsuchida et al.  
Serial No.: 10/010,943-143      Patent No.:  
Filing Date: 12/06/2001      Grant Date:

The dating stamp of the Patent and Trademark Office hereon will be taken as the date of filing of:  
Amendment Transmittal; Amendment; and copy of papers previously filed to correct the filing date.

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AUG 11 2003  
EDWARDS & ANGELL LLP  
IP DOCKETING DEPT. (BOS)

OIPTE  
JUL 16 2003  
PATENT & TRADEMARK OFFICE

Due 07/11/2003

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JAN 25 2007

OFFICE OF PETITIONS

Mailing Date: 07/11/2003 Attorney/Sec: JJP/PFC/dmr  
Client: Shipley (70329) Docket No.: 51334  
Inventors: Tsuchida et al.  
Serial No.: 10/010,913 Patent No.:  
Filing Date: 12/06/2001 Grant Date:

The dating stamp of the Patent and Trademark Office hereon will be taken as the date of filing of:

Amendment Transmittal; Amendment; and copy of papers previously filed to correct the filing date.

Due Date: 07/11/2003

Practitioner's Docket No. 51334

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Tsuchida et al.

Serial No.: 10/010,943-193

Group No.: 1773

Filed: December 6, 2001

Examiner: Kevin R. Kruer

For: NON-CHARGING RESIN COMPOSITE AND METHOD OF  
MANUFACTURING SAME

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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**AMENDMENT TRANSMITTAL**

1. Transmitted herewith is an amendment for this application.

**STATUS**

2. Applicant is  
[ ] a small entity. A statement:  
[ ] is attached.  
[ ] was already filed.  
[X] other than a small entity.

---

**CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. 1.8(a))**

I hereby certify that, on the date shown below, this correspondence is being:

**MAILING**

☒ deposited with the United States Postal Service  
with sufficient postage as first class mail in an  
envelope addressed to the Commissioner for  
Patents, P.O. Box 1450, Alexandria, Virginia  
22313-1450.

**FACSIMILE**

☐ transmitted by facsimile to the Patent and  
Trademark Office.

Date: 7/11/03

  
Signature

Deanna M. Rivernider  
(type or print name of person certifying)



## EXTENSION OF TERM

**NOTE:** "Extension of Time in Patent Cases (Supplement Amendments) — If a timely and complete response has been filed after a Non-Final Office Action, an extension of time is not required to permit filing and/or entry of an additional amendment after expiration of the shortened statutory period.

*If a timely response has been filed after a Final Office Action, an extension of time is required to permit filing and/or entry of a Notice of Appeal or filing and/or entry of an additional amendment after expiration of the shortened statutory period unless the timely-filed response placed the application in condition for allowance. Of course, if a Notice of Appeal has been filed within the shortened statutory period, the period has ceased to run." Notice of December 10, 1985 (1061 O.G. 34-35).*

**NOTE:** See 37 C.F.R. 1.645 for extensions of time in interference proceedings, and 37 C.F.R. 1.550(c) for extensions of time in reexamination proceedings.

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply.

*(complete (a) or (b), as applicable)*

(a) ☐ Applicant petitions for an extension of time under 37 C.F.R. 1.136  
(fees: 37 C.F.R. 1.17(a)(1)-(4)) for the total number of months checked below:

	Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/>	one month	\$110.00	\$ 55.00
<input type="checkbox"/>	two months	\$390.00	\$195.00
<input type="checkbox"/>	three months	\$890.00	\$445.00
<input type="checkbox"/>	four months	\$1390.00	\$695.00

Fee: \$ \_\_\_\_\_

If an additional extension of time is required, please consider this a petition therefor.

*(check and complete the next item, if applicable)*

☐ An extension for \_\_\_\_\_ months has already been secured. The fee paid therefor of \$ \_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ \_\_\_\_\_

OR

(b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

JAN 25 2007

## FEE FOR CLAIMS

## OFFICE OF PETITIONS

4. The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

(Col.1)		(Col. 2) (Col. 3) SMALL ENTITY			OTHER THAN A SMALL ENTITY			
Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Addit. Fee	OR	Rate	Addit. Fee
Total	* Minus	**	=	x \$9 =	\$		x \$18 =	\$
Indep.	* Minus	***	= 0	x \$40 =	\$		x \$80 =	\$
[ ] First Presentation of Multiple Dependent Claim				+ \$135 =	\$		+ \$270 =	\$
Total Addit. Fee					\$ _____	OR	Total Addit. Fee	\$

\* If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3,

\*\* If the "Highest No. Previously Paid For" IN THIS SPACE is less than 20, enter "20".

\*\*\* If the "Highest No. Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest No. Previously Paid For" (Total or Indep.) is the highest number found in the appropriate box in Col. 1 of a prior amendment or the number of claims originally filed.

**WARNING:** "After final rejection or action (§ 1.113) amendments may be made canceling claims or complying with any requirement of form which has been made." 37 C.F.R. 1.116(a) (emphasis added).

(complete (c) or (d), as applicable)

(c) [X] No additional fee for claims is required.

OR

(d) [ ] Total additional fee for claims required \$ \_\_\_\_\_.

## FEE PAYMENT

5. [ ] Attached is a check in the sum of \$ \_\_\_\_\_.
- [ ] Charge Account No. \_\_\_\_\_ the sum of \$ \_\_\_\_\_.
- A duplicate of this transmittal is attached.

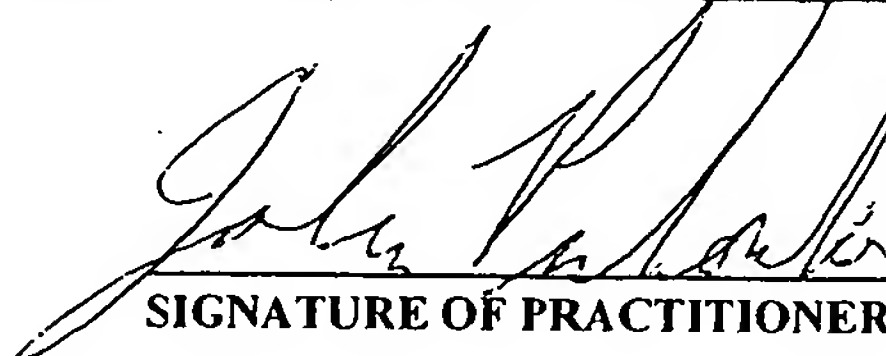
## FEE DEFICIENCY

**NOTE:** If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, (1065 O.G. 31-33).

6. [X] If any additional extension and/or fee is required, charge Account No. 04-1105.

AND/OR

[X] If any additional fee for claims is required, charge Account No. 04-1105.



SIGNATURE OF PRACTITIONER

Reg. No. 35,647

John J. Piskorski

*(type or print name of practitioner)*

Tel. No. (508) 229-7662

c/o EDWARDS & ANGELL, LLP

P.O. Box 9169

P.O. Address

Boston, Massachusetts 02209

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

51334

In re application of:

Tsuchida et al.

:

Serial No.: 10/010,913-193

:

Filed: December 6, 2001

: Group Art Unit: 1773

For: NON-CHARGING RESIN COMPOSITE AND  
METHOD OF MANUFACTURING SAME

: Examiner: Kevin R. Kruer

AMENDMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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Dear Sir:

In response to the Office Action mailed May 27, 2003 Applicants respectfully request reconsideration of the above-identified patent application.

Please amend the application by amending claim 1 and claim 6 as indicated in the enclosed Listing of Claims.

Please cancel claim 7 without prejudice or disclaimer.

Please add new claims 12 and 13.

Enclosed with this Amendment are papers for correcting the filing date.

## REMARKS

Applicants thank Examiner Kruer for his courteous and congenial telephone interview with Applicants' representative on July 13.

Claims 1-6 and 8-13 are pending in the present application.

Claims 1 and 6 were amended and claims 12-13 were added to more particularly point out and clearly define the invention.

Claim 7 was canceled because the subject matter of the claim was incorporated into claim 6.

Claims 1-3 were rejected under 35 U.S.C. § 112, second paragraph.

Claim 1 has been amended by deleting the terms "metal element" and substituting the expression "metal, metal alloy, metal compound, or mixtures thereof". Support for this amendment is in the substitute specification at page 8, line 3 to page 9, line 12.

The Office Action's allegation that the claim fails to state a ratio is incorrect. The expression " $10^{12}$ - $10^{17}$  ( $1/\square\cdot\text{cm}$ )" is a ratio. The expression is a ratio of surface resistance of resin composite material/ resistivity of the component containing the metal, metal alloy or metal compound. Surface resistance of the resin composite material =  $\Omega/\square$ , and resistivity of the component containing the metal, metal alloy or metal compound =  $\Omega\cdot\text{cm}$ . Surface resistance of resin composite material/resistivity of the component containing the metal, metal alloy, or metal compound =  $\Omega/\square/\Omega\cdot\text{cm} = 1/\square\cdot\text{cm}$ . Support in the substitute specification is at page 6, lines 1-7. Accordingly, the claim does recite a ratio.

Further, the units in the claim are not indefinite. The expression  $1/\square\cdot\text{cm}$  contains units that are well known in the art and the above explanation shows how such units are obtained for the ratio.

Applicants respectfully request withdrawal of the rejection of claims 1-3 under 35 U.S.C. § 112, second paragraph.

Claims 1-11 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. 3,642,584 to Quinn et al. Applicants respectfully traverse this rejection.

Since claim 7 was canceled, the rejection with respect to claim 7 is moot.

The Office Action has not presented a *prima facie* case of obviousness. The applied document does not teach or suggest a resin composite material in which a component comprising

a metal, metal alloy, metal compound or mixtures thereof is present at a surface of a resin base, said non-charging resin composite material having a ratio of a surface resistance of said resin composite material to a resistivity of said component containing metal element is  $10^{12}$  to  $10^{17}$  ( $1/\square\cdot\text{cm}$ ) as recited in claim 1. The applied document also does not teach or suggest the method recited in amended claim 6. Quinn et al. do not teach or suggest all of the elements of claims 1 and 6. See In re Wilson, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). Quinn et al. is totally silent on the ratio of surface resistance of the resin composite material to the resistivity of the component containing the metal, metal alloy, or metal compound as recited in present claims 1 and 6.

The Office Action at page 3, paragraph 2 alleges that "...it would have been obvious to one of ordinary skill in the art to select the metal element and to vary the amount of metal element deposited on the substrate in order to obtain the desired level of conductivity. The examiner takes the position that one would necessarily change the 'ratio of the resin composite material to the resistivity of said component containing metal element' with the selection of the metal element and by varying the amount of metal element deposited." However, Quinn et al. would not have provided any reason or motivation to form a resin composite material having the recited ratios of claims 1 and 6. As mentioned above, Quinn et al. are totally silent on such ratios. Obviousness can not be predicted on what is unknown. In re Spormann, 150 U.S.P.Q. 449, 452 (C.C.P.A. 1966).

Further, Quinn et al. do not address the same problems as the present invention. A resin composite material having a ratio of a surface resistance of the resin composite material to a resistivity of the component containing the metal, metal alloy or metal compound of  $10^{12}$  to  $10^{17}$  ( $1/\square\cdot\text{cm}$ ) prevents damage to the resin base from electrostatic electricity caused by charging and can prevent adhesion of dust and dirt particles to the resin composite material (substitute specification, page 24, lines 5-7).

In contrast, Quinn et al. are directed to a method of metal plating plastics and articles having adherent metal coatings that are resistant to peeling, temperature cycling, corrosion, and electrically conductive as well as metal coatings to protect articles from abrasion, scratching, and marring, reduce their porosity and improve their thermal conductivity (Quinn et al. col. 1, lines 19-29). No where does Quinn et al. address the problems which the presently claimed invention addresses. Accordingly, a person of skill in the art would not have had any reason or motivation

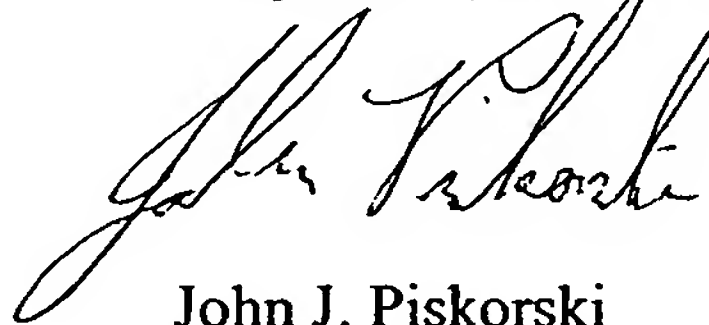
to make the resin composite material of the presently claimed invention in view of Quinn et al. It is only by reading Applicants' specification that a person of skill in the art would have been motivated to make Applicants' invention. Using Applicants' disclosure in an obviousness rejection is improper.

Applicants respectfully request withdrawal of the rejection of claims 16 and 8-11 under 35 U.S.C. § 103(a) over U.S. 3,642,584 to Quinn et al.

Favorable consideration and allowance of claims 1-6 and 8-13 are earnestly solicited.

If the Examiner has any questions concerning this response or this application, or if he believes this application is for any reason not yet in condition for allowance, he is respectfully requested to telephone the undersigned at the number set forth below in order to expedite allowance of this application.

Respectfully submitted,



John J. Piskorski  
Attorney for Applicants  
Registration No. 35,647

Shipley Company, L.L.C.  
455 Forest Street  
Marlborough, MA 01752  
Telephone No.: (508) 229-7662  
Facsimile No.: (508) 787-4730



## LISTING OF CLAIMS

1. (Currently Amended) A resin composite material in which a component comprising a metal, metal alloy, metal compound, or mixtures thereof element-is present at a surface of a resin base, said non-charging resin composite material having a ratio of a surface resistance of said resin composite material to a resistivity of said component containing metal, metal alloy, metal compound, or mixtures thereof element-is  $10^{12}$  to  $10^{17}$  ( $1/\square \cdot \text{cm}$ ).
2. (Previously Amended) The non-charging resin composite material according to Claim 1, wherein the surface resistance of the resin composite material is  $10^6$ - $10^{11}$   $\Omega/\square$ .
3. (Previously Amended) The non-charging resin composite material according to Claim 1, wherein the component containing metal element is selected from the group consisting of metals, metal arsenides, metal antimonides, metal selenides, metal tellurides, metal sulfides and metal oxides.
4. (Previously Amended) The non-charging resin composite material according to any of Claims 1-3, wherein the metal element is a metal element selected from the group consisting of V, Cr, Mn, Fe, Co, Ni, Cu, Ga, As, Se, Mo, Ru, Rh, Pd, Ag, Cd, In, Sb, Te, Os, Ir, Pt, Au, Hg, Pb, Bi and mixtures thereof.
5. (Previously Amended) The non-charging resin composite material according to Claim 1, wherein the resin is a resin selected from the group consisting of epoxy resin, polyimide resin, vinyl resin, phenol resin, nylon resin, polyphenylene ether resin, polypropylene resin, fluorine-based resin, ABS resin and mixtures thereof.
6. (Currently Amended) A method for manufacturing a non-charging resin composite material, which comprises (1) treating a process wherein resin base with an ion exchange group introduction agent, (2) treating the resin base with a liquid containing metal ions, and (3) introducing a component containing metal element at the surface of the resin by a conversion treatment the non-charging resin component material has a ratio of the surface resistance of the resin composite material to the resistivity of the component containing metal, metal alloy, metal compound, or mixtures thereof of  $10^2$  to  $10^{17}$  ( $1/\square \cdot \text{cm}$ ).



7. (Canceled)
8. (Previously Added) The method of claim 6 wherein the non-charging composite material has a surface resistance of  $10^6$  to  $10^{11} \Omega/\square$ .
9. (Previously Added) The method of claim 6 wherein the resin base is selected from the group consisting of epoxy resin, polyimide resin, vinyl resin, phenol resin, nylon resin, polyphenylene ether resin, polypropylene resin, fluorine-based resin, ABS resin and mixtures thereof.
10. (Previously Added) The method of claim 6 wherein the metal element is selected from the group consisting of V, Cr, Mn, Fe, Co, Ni, Cu, Ga, As, Se, Mo, Ru, Rh, Pd, Ag, Cd, In, Sb, Te, Os, Ir, Pt, Au, Hg, Pb, Bi and mixtures thereof.
11. (Previously Added) The method of claim 6 wherein the component containing metal element is selected from the group consisting of metals, metal arsenides, metal antimonides, metal selenides, metal tellurides, metal sulfides and metal oxides.
12. (New) The resin composite material of claim 1, wherein the metal, metal alloy, or metal compound contains copper in an amount of from  $0.005 - 5 \text{ g/m}^2$ .
13. (New) The resin composite material of claim 12, wherein the copper is in an amount of from  $0.01 - 0.3 \text{ g/m}^2$ .